Data Committee Meeting Agenda

Wednesday, August 21, 2019 @ 1:00 PM
Michigan Department of Transportation Aeronautics Building
2nd Floor Commission Room
2700 Port Lansing Road
Lansing, Michigan

Meeting Telephone Conference Line: 1-877-336-1828 Access Code: 8553654#

Web Meeting Access Link: http://michigandot.adobeconnect.com/rhmmflbr45l4/

1. **Welcome - Call to Order – Introductions**

2. **Public Comments on Non-Agenda Items**

3. **Consent Agenda** ***(Action)***
   - 3.1 Approval of the 7-24-19 Data Committee Meeting Minutes ***(Attachment 1)***
   - 3.2 TAMC Budget Update ***(Attachment 2)***
   - 3.3 TAMC Fall Conference – Save the Date: 10-30-19, Marquette ***(Attachment 3)***

4. **Presentation** – TAMC Pavement Condition Forecast System Scenarios – *Lemon*

5. **Review & Discussion Items:**
   - 5.1. Traffic Signal Pilot Effort – Next Steps ***(Memo & Attachment 4)***
   - 5.2. Investment Reporting Compliance Review Update – *Belknap* ***(Attachment 5)***
   - 5.3. Status of 2019 PASER Data Collection – *Belknap* ***(Attachment 6)***
   - 5.4. Michigan Technological University's Center for Technology & Training 2020 Work Plan ***(Memo)***
     - 5.4.1. MTU-CTT TAMC 2020 Education Proposal ***(Attachment 7)***
     - 5.4.2. MTU-CTT TAMC 2020 Activities Proposal ***(Attachment 8)***
   - 5.5. Website/Dashboard/Investment Reporting Tool (IRT) Update – *CSS*
     - 5.5.1. IRT-Warranty Updates
     - 5.5.2. 3-Year Planned Improvements & State Transportation Improvement Program (STIP) Integration
     - 5.5.3. IRT Modifications for Submittal of Asset Management Plans
   - 5.6. 2019 TAMC Annual Report Early Planning – *McEntee/Jennett*

6. **Public Comments**

7. **Member Comments**

8. **Adjournment**

The next TAMC Data Committee Meeting is scheduled for September 18, 2019 at the MDOT Aeronautics Building, 2nd Floor Commission Room, 2700 Port Lansing Road, Lansing, Michigan

Data Committee Members: Committee Chair: Bill McEntee, CRA – Vice Chair: Jon Start, MTPA
Bob Slattery, MML – Jennifer Tubbs, MTA – Rob Surber, MCSS

TRANSPORTATION ASSET MANAGEMENT COUNCIL
DATA COMMITTEE

July 24, 2019 at 1:00 p.m.
MDOT Aeronautics Building, 2nd Floor Commission Conference Room
2700 Port Lansing Road
Lansing, Michigan

MINUTES

****Frequently Used Acronyms Attached**

Members Present:
Bill McEntee, CRA – Chair
Jonathan Start, MTPA/KATS – Vice Chair
Jennifer Tubbs, MTA
Bob Slattery, MML, via Telephone
Rob Surber, DTMB/CSS

Support Staff Present:
Roger Belknap, MDOT, via Telephone
Cheryl Granger, DTMB/CSS
Dave Jennett, MDOT
Tim Lemon, MDOT
Craig Newell, MDOT
Tim Colling, LTAP/MTU, via Telephone
Mark Holmes, DTMB/CSS
Tim Lauxmann, DTMB/CSS
Kyle Nelson, MDOT
Gloria Strong, MDOT

Members Absent:
None

Public Present:
Erin Chelotti, MDOT
Aaron Verhelle, RCOC

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1. Welcome – Call-to-Order – Introductions:
The meeting was called-to-order at 1:00 p.m. Everyone was welcomed to the meeting.

2. Public Comments on Non-Agenda Items:
None

3. Consent Agenda:

3.1. – Approval of April 24, 2019 Data Committee Meeting Minutes – *Action Item* (Attachment 1)

3.2. – TAMC Budget Update (Attachment 2)
An updated financial report (04/19/2019) was provided to the committee.

Motion: J. Start made a motion to approve the Consent Agenda; J. Tubbs seconded the motion. The motion was approved by all members present.

4. Traffic Signal Pilot Efforts – B. McEntee (Attachment 3):
The Committee needs to determine which data elements to collect for traffic signals and add to the TAMC IRT. Based upon past discussions with subject matter experts, a document was created listing the possible elements that need to be collected for traffic signals. This document was shared with the committee for their review. On the local level there is a value to know how many signals agencies have. On the state level, there is no value to know the count of the local system. MTU has drafted an asset management plan template (per Public Act 325) and the template requests the basic information for signals. If there is not a lot of automation changes needed, MTU can add additional areas to

the template in a timely manner. It is the Committee's recommendation that there be no further action on behalf of the Council at this time, but later do a rough statewide estimate. A suggestion was that the Committee come up with some broad categories in signal work then assign a good estimated cost figure to them. It was suggested that the committee do either an agency pilot project or survey to find out basic information on agencies current traffic signals inventory. The committee decided to send out a survey within the next couple of months. The Council needs to know how much the signals cost with different scenarios. This list of elements to collect does not have to be finalized prior to the due date of the Asset Management Plan template, which is October 1, 2019. Currently, there is a placeholder in the template for culverts and traffic signals. Number of culverts, cost, and how many should be replaced each year are currently fields in the template. The majority of the elements are already in Roadsoft. MTU can create a one button push element in Roadsoft to make it easy for the agencies to complete.

Action Item: MTU will create a survey that will be sent out to agencies within the next couple of months regarding their current traffic signals and ask what data elements they feel would be useful for TAMC to collect. TAMC could also get the agencies definition of things, such as pole types, from this same survey.

5. Presentation: TAMC Pavement Condition Forecast System Scenario – G. Chesbro/T. Lemon:

G. Chesbro and T. Lemon presented a PowerPoint presentation on the Statewide Paved Federal-Aid Condition Forecast. The Committee would like a forecast of miles of reconstruction of the NFC. Two models can be done – one that handles NHS and another that handles the rest of the NHC. A recommended change in strategy to sell to the public and/or the legislature for the NFC system. One of the ways to use the $800,000,000 funds increase is to increase the investment and reconstruction on the trunkline system. Further discussions will need to be had on how to quality check data analysis. TAMC will work on strategies to get the best outcome possible, assuming the bill gets the $800,000,000 revenue increase.

Action Item: T. Lemon and G. Chesbro will create an easy to explain statewide strategy to get the roads repaired for the NFC only to present to the public and the legislature. On the forecast document, there will need to be a note stating that the improvement will not be uniform for all road types. The Committee would like this strategy shared with the full Council at their August 4, 2019 meeting.

6. Review and Discussion Items:

6.1. – Draft TAMC Asset Management Plan Template – T. Colling - *Action Item* (Attachment 4) -

T. Colling shared a draft TAMC Asset Management Plan Template created by MTU with the Committee for their review and approval. With this template, an agency can do a Roadsoft data import into a word document template, and then make it specific to their agency. When the plan is final, it will be approximately 80 pages in length. MTU followed the modular set-up component that simplifies any changes for the agencies. The Committee felt the template was good however, they would like MTU to add a pdf cover letter to the template.

Action Item: MTU will add a pdf cover letter to the template**.**

Motion: J. Tubbs made a motion to move the Draft Asset Management Plan template created by MTU on to the full Council on August 4, 2019, for their review and action; J. Start seconded the motion. The motion was approved by all members present.

6.2. – Investment Reporting Compliance Review Update – R. Belknap (Attachment 5) -

R. Belknap provided a brief review of the document "Summary Statistics – TAMC Investment Reporting Compliance as of July 19, 2019."

6.3. – Status of 2019 PASER Data Collection – R. Belknap (Attachment 6) -

R. Belknap provided a brief review of a "2019 – PASER Status by County" document. A simple list of the files that have been uploaded for non-federal aid data sets has been added to this report. Collection of PASER data will pick up again in September/October.

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6.4. – Draft Work Program Review – R. Belknap – Action Item (Attachment 7) -
R. Belknap provided an updated Draft TAMC Work Program from the June 5, 2019 Strategic Planning Session. R. Belknap needs the Data Committee to review their sections for completeness. It was suggested to place reminders in the meeting packets of what is needed from Committee members for any attachments and/or action items.

Action Item: Data Committee members must review the Draft TAMC Work Program prior to the August 4, 2019 full Council meeting and be prepared to present any changes/comments at the meeting, if necessary. Committee members can also forward those comments/changes to R. Belknap prior to the August meeting.

Action Item: R. Belknap will add reminders in the meeting packets of what is needed from Committee members for any attachments and/or action items.

Motion: J. Start made a motion for the draft TAMC Work Program to go forward to the full Council at their August 4, 2019 meeting for their review and action. However, Data Committee reserves the right to make changes at the meeting; J. Tubbs seconded the motion. The motion was approved by all members present.

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6.5. – Website/Dashboard/Investment Reporting Tool (IRT) Update – C. Granger/M. Holmes:

6.5.1. – CSS 2020 Work Plan and Budget – *Action Item* (Attachment 8) -
M. Holmes provided a copy and reviewed the draft FY 2020 TAMC Work Plan for CSS dated 07/16/2019. The document covers work area, tasks, description of the tasks, estimate of hours to complete, and an estimated cost. The total FY 2019 Budget for CSS is $378, 560.00 and the proposed total budget for FY 2020 is $374,950. A surplus will remain from FY 2019. CSS has included funds under "Application Changes and Improvements," item 6, in their FY 2020 Work Plan to complete changes needed to the IRT in the asset management plan section, that will assist agencies and support staff in making sure all elements of Public Act 325 are included in the agencies plan when their plan is submitted. CSS will work on their FY 2021 budget once the 2020 budget is approved.

CSS would like to remind the locals that they are now required to report their planned projects.

Motion: J. Start made a motion to move the draft CSS 2020 Work Program and Budget on to full Council at their August 4, 2019 meeting; J. Tubbs seconded the motion. The motion was approved by all members present.

6.5.2. – IRT – Warranty Updates – C. Granger
CSS plans to have the warranty information out before September. CSS will work with MTU on an interface if they are going to collect warranty information in Roadsoft. CSS will also need to figure out how to get the warranty data transferred over into the IRT from Roadsoft. Legislation requires that if a warranty is not provided, there needs to be a reason why it was not included or what the reason was for the exception. MDOT did not include the warranty information in their report. Erin Chelotti, MDOT, stated it is not necessary to provide the warranty information in the report. The Committee thought it was required. E. Chelotti will double check to see if it is a requirement of the legislation or not, and let the Committee know her findings. MDOT has never placed this information in their report in past years.

Action Item: E. Chelotti will inform the committee if warranties are required in the MDOT report at a future meeting or by email.

6.5.3. – 3-Year Planned Improvements and State Transportation Improvement Program (STIP) Integration – D. Jennett

D. Jennet gave an update on the progress that is being made on getting STIP planned projects into the IRT. TAMC has not officially asked MDOT to work with them on this effort. C. Newell suggests that be done to assure MDOT staff time and resources are not overly tasked. CSS is planning to add to the IRT a mechanism that informs the agencies that it is now a requirement they fill out the section for planned projects. Depending on the type of project and road system, some projects may not show up in the database (such as light and heavy CPM projects). A "Non-applicable" check box may need to be added to the IRT.

6.5.4. – IRT Modifications for Submittal of Asset Management Plans – D. Jennett

D. Jennett is working on the format for the IRT for agencies to submit their required Transportation Asset Management Plans under Public Act 325.

Action Item: D. Jennett will send out to the Committee the updated screen shot of the asset management plan questions/checklist for their review.

6.6. – 2019 TAMC Annual Report Early Planning – B. McEntee

The Data Committee needs to think of ways to make improvement changes to the 2019 TAMC Road and Bridges Annual Report. B. McEntee asked D. Jennett to send out to the committee changes that were discussed in the past that may improve the report.

Action Item: D. Jennett will send out an email of possible changes for the 2019 annual Report and the Committee will discuss at their next meeting in August.

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7. Public Comments:

R. Belknap had a request from Bridge Committee for any Data Committee members interested in participating in a sub-group to assist with added culvert project efforts. B. McEntee volunteered to be on the sub-committee.

8. Member Comments:

None

9. Adjournment:

Motion: J. Start made a motion to adjourn the meeting; J. Tubbs seconded the motion. The motion was approved by all members present. The meeting adjourned at 3:30 p.m. The next TAMC Data Committee meeting is scheduled for August 21, 2019, at 1:00 p.m., MDOT Aeronautics Building, 2nd Floor Commission Conference Room, 2700 Port Lansing Road, Lansing.

TAMC FREQUENTLY USED ACRONYMS:

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ACE	ADMINISTRATION, COMMUNICATION, AND EDUCATION (TAMC COMMITTEE)
ACT-51	PUBLIC ACT 51 OF 1951-DEFINITION: A CLASSIFICATION SYTEM DESIGNED TO DISTRIBUTE MICHIGAN'S ACT 51 FUNDS. A ROADWAY MUST BE CLASSIFIED ON THE ACT 51 LIST TO RECEIVE STATE MONEY.
ADARS	ACT 51 DISTRIBUTION AND REPORTING SYSTEM
BTP	BUREAU OF TRANSPORTATION PLANNING (MDOT)
CPM	CAPITAL PREVENTATIVE MAINTENANCE
CRA	COUNTY ROAD ASSOCIATION (OF MICHIGAN)
CSD	CONTRACT SERVICES DIVISION (MDOT)
CSS	CENTER FOR SHARED SOLUTIONS
DI	DISTRESS INDEX
ESC	EXTENDED SERVICE LIFE

FAST	FIXING AMERICA'S SURFACE TRANSPORTATION ACT
FHWA	FEDERAL HIGHWAY ADMINISTRATION
FOD	FINANCIAL OPERATIONS DIVISION (MDOT)
FY	FISCAL YEAR
GLS REGION V	GENESEE-LAPEER-SHIAWASSEE REGION V PLANNING AND DEVELOPMENT COMMISSION
GVMC	GRAND VALLEY METRO COUNCIL
HPMS	HIGHWAY PERFORMANCE MONITORING SYSTEM
IBR	INVENTORY BASED RATING
IRI	INTERNATIONAL ROUGHNESS INDEX
IRT	INVESTMENT REPORTING TOOL
KATS	KALAMAZOO AREA TRANSPORTATION STUDY
KCRC	KENT COUNTY ROAD COMMISSION
LDC	LAPTOP DATA COLLECTORS
LTAP	LOCAL TECHNICAL ASSISTANCE PROGRAM
MAC	MICHIGAN ASSOCIATION OF COUNTIES
MAP-21	MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY (ACT)
MAR	MICHIGAN ASSOCIATION OF REGIONS
MDOT	MICHIGAN DEPARTMENT OF TRANSPORTATION
MDTMB	MICHIGAN DEPARTMENT OF TECHNOLOGY, MANAGEMENT AND BUDGET
MIC	MICHIGAN INFRASTRUCTURE COUNCIL
MITA	MICHIGAN INFRASTRUCTURE AND TRANSPORTATION ASSOCIATION
MML	MICHIGAN MUNICIPAL LEAGUE
MPO	METROPOLITAN PLANNING ORGANIZATION
MTA	MICHIGAN TOWNSHIPS ASSOCIATION
MTF	MICHIGAN TRANSPORTATION FUNDS
MTPA	MICHIGAN TRANSPORTATION PLANNING ASSOCIATION
MTU	MICHIGAN TECHNOLOGICAL UNIVERSITY
NBI	NATIONAL BRIDGE INVENTORY
NBIS	NATIONAL BRIDGE INSPECTION STANDARDS
NFA	NON-FEDERAL AID
NFC	NATIONAL FUNCTIONAL CLASSIFICATION
NHS	NATIONAL HIGHWAY SYSTEM
PASER	PAVEMENT SURFACE EVALUATION AND RATING
PNFA	PAVED NON-FEDERAL AID
PWA	PUBLIC WORKS ASSOCIATION
QA/QC	QUALITY ASSURANCE/QUALITY CONTROL
RCKC	ROAD COMMISSION OF KALAMAZOO COUNTY
RCOC	ROAD COMMISSION OF OAKLAND COUNTY
ROW	RIGHT-OF-WAY
RPA	REGIONAL PLANNING AGENCY
RPO	REGIONAL PLANNING ORGANIZATION
SEMCOG	SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS
STC	STATE TRANSPORTATION COMMISSION
STP	STATE TRANSPORTATION PROGRAM
TAMC	TRANSPORTATION ASSET MANAGEMENT COUNCIL
TAMCSD	TRANSPORTATION ASSET MANAGEMENT COUNCIL SUPPORT DIVISION
TAMP	TRANSPORTATION ASSET MANAGEMENT PLAN
TPM	TRANSPORTATION PERFORMANCE MEASURES
UWP	UNIFIED WORK PROGRAM
WAMC	WATER ASSET MANAGEMENT COUNCIL
X-Council	A GROUP OF KEY PEOPLE FROM MIC/TAMC/WAMC

S:/GLORIASTRONG/TAMC FREQUENTLY USED ACRONYMS.04.24.2019.GMS

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TAMC Budget Expenditure Report

8/15/2019

Michigan Transportation Asset Management Council

	(most recent invoice date)	FY17 Budget $	FY17 Actual Spent	FY17 Actual Balance	FY18 Budget $	FY18 Actual Spent	FY18 Actual Balance	FY19 Budget $	FY19 Year to Date Spent	FY19 Year to Date Balance	FY20 Budget $
I. Data Collection & Regional-Metro Planning Asset Management Progam											
Battle Creek Area Transporation Study	3 QTR 19	$ 20,000.00	$ 15,444.03	$ 4,555.97	$ 20,500.00	$ 20,213.36	$ 286.64	$ 20,500.00	$ 6,100.76	$ 14,399.24	$ 20,500.00
Bay County Area Transportation Study	3 QTR 19	$ 20,000.00	$ 10,794.42	$ 9,205.58	$ 21,100.00	$ 8,028.84	$ 13,071.16	$ 21,100.00	$ 14,271.14	$ 6,828.86	$ 19,900.00
Central Upper Peninsula Planning and Development	3 QTR 19	$ 40,471.00	$ 40,471.00	$ -	$ 47,000.00	$ 47,000.00	$ -	$ 47,000.00	$ 22,181.81	$ 24,818.19	$ 50,000.00
East Michigan Council of Governments	July '19	$ 95,995.00	$ 80,092.75	$ 15,902.25	$ 111,000.00	$ 81,559.65	$ 29,440.35	$ 111,000.00	$ 67,369.52	$ 43,630.48	$ 108,000.00
Eastern Upper Peninsula Regional Planning & Devel.	3 QTR 19	$ 20,000.00	$ 20,000.00	$ -	$ 23,100.00	$ 23,100.00	$ -	$ 23,100.00	$ 10,522.89	$ 12,577.11	$ 25,000.00
Genesee Lapeer Shiawasse Region V Planning Com.	June '19	$ 39,423.00	$ 37,172.06	$ 2,250.94	$ 46,000.00	$ 45,954.99	$ 45.01	$ 46,000.00	$ 10,353.88	$ 35,646.12	$ 46,000.00
Grand Valley Metropolitan Council	3 QTR 19	$ 20,000.00	$ 18,974.64	$ 1,025.36	$ 25,000.00	$ 12,060.69	$ 12,939.31	$ 25,000.00	$ 9,869.35	$ 15,130.65	$ 24,000.00
Kalamazoo Area Transportation Study	3 QTR 19	$ 20,000.00	$ 19,128.11	$ 871.89	$ 22,000.00	$ 21,588.77	$ 411.23	$ 22,000.00	$ 11,553.11	$ 10,446.89	$ 22,000.00
Macatawa Area Coordinating Council	3 QTR 19	$ 20,000.00	$ 7,405.66	$ 12,594.34	$ 20,200.00	$ 9,575.57	$ 10,624.43	$ 20,200.00	$ 4,622.68	$ 15,577.32	$ 19,000.00
Midland Area Transportation Study	2 QTR 19	$ 20,000.00	$ 17,660.54	$ 2,339.46	$ 21,000.00	$ 20,857.81	$ 142.19	$ 21,000.00	$ 1,680.88	$ 19,319.12	$ 21,000.00
Northeast Michigan Council of Governments	June '19	$ 43,426.45	$ 43,426.45	$ -	$ 52,200.00	$ 52,200.00	$ -	$ 46,000.00	$ 32,318.91	$ 13,681.09	$ 51,000.00
Networks Northwest	2 QTR 19	$ 61,316.00	$ 61,316.00	$ -	$ 72,000.00	$ 71,915.46	$ 84.54	$ 72,000.00	$ 15,097.56	$ 56,902.44	$ 75,000.00
Region 2 Planning Commission	2 QTR 19	$ 37,940.00	$ 24,743.56	$ 13,196.44	$ 42,000.00	$ 29,362.33	$ 12,637.67	$ 42,000.00	$ 12,472.00	$ 29,528.00	$ 40,000.00
Saginaw County Metropolitan Plannning Commission	3 QTR 19	$ 20,000.00	$ 11,585.29	$ 8,414.71	$ 22,200.00	$ 22,000.00	$ 200.00	$ 22,200.00	$ 11,475.89	$ 10,724.11	$ 21,000.00
Southcentral Michigan Planning Commission	3 QTR 19	$ 53,162.00	$ 36,915.67	$ 16,246.33	$ 57,300.00	$ 37,137.28	$ 20,162.72	$ 57,300.00	$ 15,280.62	$ 42,019.38	$ 55,000.00
Southeast Michigan Council of Governments	June '19	$ 135,680.00	$ 135,679.60	$ 0.40	$ 174,000.00	$ 174,000.00	$ -	$ 174,000.00	$ 82,974.63	$ 91,025.37	$ 174,000.00
Southwest Michigan Planning Commission	3 QTR 19	$ 37,030.00	$ 37,030.00	$ -	$ 41,000.00	$ 41,000.00	$ -	$ 41,000.00	$ 14,315.05	$ 26,684.95	$ 41,000.00
Tri-County Regional Planning Commission	3 QTR 19	$ 33,786.00	$ 33,786.00	$ -	$ 40,000.00	$ 21,680.54	$ 18,319.46	$ 40,000.00	$ 15,926.00	$ 24,074.00	$ 40,000.00
West Michigan Regional Planning Commission	June '19	$ 82,467.00	$ 82,467.00	$ -	$ 91,000.00	$ 74,351.07	$ 16,648.93	$ 91,000.00	$ 45,865.37	$ 45,134.63	$ 88,000.00
West Michigan Shoreline Regional Development Com.	July '19	$ 46,781.56	$ 46,145.01	$ 636.55	$ 54,000.00	$ 51,333.45	$ 2,666.55	$ 54,000.00	$ 28,781.68	$ 25,218.32	$ 54,000.00
Western Upper Peninsula Regional Planning & Devel.	2 QTR 19	$ 34,867.00	$ 34,847.53	$ 19.47	$ 40,000.00	$ 40,000.00	$ -	$ 40,000.00	$ 11,521.12	$ 28,478.88	$ 42,000.00
MDOT Region Participation & PASER Quality Control	7/13/19	$ 62,750.00	$ 85,337.50	$ (22,587.50)	$ 80,000.00	$ 52,914.97	$ 27,085.03	$ 91,440.00	$ 82,322.29	$ 9,117.71	$ 80,000.00
Fed. Aid Data Collection & RPO/MPO Program Total		**$ 965,095.01**	**$ 900,422.82**	**$ 64,672.19**	**$ 1,116,400.00**	**$ 957,834.78**	**$ 158,565.22**	**$ 1,116,400.00**	**$ 526,877.14**	**$ 589,522.86**	**$ 1,116,400.00**
II. PASER Data Collection (Paved, Non-Federal-Aid System)											
PASER PNFA Data Collection Total		**$ 40,760.39**	**$ 40,760.39**	**$ -**	*(FY18 PNFA Moved Into Data Collection Program Above)*			*(FY19 PNFA Moved Into Data Collection Program Above)*			*(FY20 PNFA Move*
III. TAMC Central Data Agency (MCSS)											
Project Management	7/31/19	$ 37,800.00	$40,064.00	($2,264.00)	$ 42,000.00	$ 46,585.00	$ (4,585.00)	$ 60,000.00	$ 63,023.00	$ (3,023.00)	$ 380,000.00
Data Support /Hardware / Software	7/31/19	$ 60,200.00	$58,833.00	$1,367.00	$ 68,800.00	$ 67,800.00	$ 1,000.00	$ 55,000.00	$ 15,075.00	$ 39,925.00	$ -
Application Development / Maintenance / Testing	7/31/19	$ 83,280.00	$78,238.00	$5,042.00	$ 114,475.00	$ 115,250.00	$ (775.00)	$ 135,000.00	$ 76,475.00	$ 58,525.00	$ -
Help Desk / Misc Support / Coordination	7/31/19	$ 66,600.00	$65,652.00	$948.00	$ 70,200.00	$ 68,200.00	$ 2,000.00	$ 61,900.00	$ 43,225.00	$ 18,675.00	$ -
Training	7/31/19	$ 27,600.00	$29,133.00	($1,533.00)	$ 34,950.00	$ 24,850.00	$ 10,100.00	$ 28,660.00	$ 17,110.00	$ 11,550.00	$ -
Data Access / Reporting	7/31/19	$ 47,155.00	$45,696.00	$1,459.00	$ 49,575.00	$ 52,175.00	$ (2,600.00)	$ 38,000.00	$ 23,125.00	$ 14,875.00	$ -
FY17 Off Budget: IRT Re-write - $241,000	9/30/17	*$ 241,040.00*	*$ 260,023.00*	*$ (18,983.00)*							
TAMC Central Data Agency (MCSS) Total		**$ 322,635.00**	**$ 317,616.00**	**$ 5,019.00**	**$ 380,000.00**	**$ 374,860.00**	**$ 5,140.00**	**$ 378,560.00**	**$ 238,033.00**	**$ 140,527.00**	**$ 380,000.00**
IV. TAMC Training & Education (MTU) Calendar Year Z1	7/22/19	**$ 210,000.00**	**$ 208,658.90**	**$ 1,341.10**	**$ 235,000.00**	**$ 234,534.14**	**$ 465.86**	**$ 220,000.00**	**$ 103,618.47**	**$ 116,381.53**	**$ 220,000.00**
V. TAMC Activities (MTU) Z15/R1	7/22/19	**$ 70,000.00**	**$ 60,253.50**	**$ 9,746.50**	**$ 115,000.00**	**$ 114,089.32**	**$ 910.68**	**$ 120,000.00**	**$ 38,845.06**	**$ 81,154.94**	**$ 120,000.00**
VI. TAMC Expenses											
Fall Conference Expenses	12/11/18	$ 6,000.00	$ 8,312.40		$ 10,000.00	$ 7,269.00		$ 10,000.00	$ 7,507.40		$ 10,000.00
Fall Conf. Attendence Fees + sponsorship Fees	12/11/18	$ -	$ 2,625.00		$ -	$ 4,405.00		$ -	$ 6,755.00		$ -
Net Fall Conference	12/11/18	$ 8,625.00	$ 8,312.40	$ 312.60	$ 14,405.00	$ 7,269.00	$ 7,136.00	$ 16,755.00	$ 7,507.40	$ 9,247.60	$ -
Spring Conference Expenses	6/27/19	$ 8,000.00	$ 6,721.80	$ -	$ 3,800.00	$ 7,439.36		$ 10,000.00	$ -		$ 10,000.00
Spring Conf. Attendence Fees + sponsorship Fees	6/27/19	$ -	$ 6,140.00	$ -	$ -	$ 8,350.00		$ -	$ 9,790.00		$ -
Net Spring Conference	6/27/19	$ 14,140.00	$ 6,721.80	$ 7,418.20	$ 12,150.00	$ 7,439.36	$ 4,710.64	$ 19,790.00	$ 8,562.18	$ 11,227.82	$ 10,000.00
Other Council Expenses	7/9/19	$ 3,915.29	$ 8,483.24	$ (4,567.95)	$ 10,000.00	$ 7,301.72	$ 2,698.28	$ 10,000.00	$ 4,131.10	$ 5,868.90	$ 10,000.00
TAMC Expenses Total		**$ 26,680.29**	**$ 23,517.44**	**$ 3,162.85**	**$ 36,555.00**	**$ 22,010.08**	**$ 14,544.92**	**$ 46,545.00**	**$ 20,200.68**	**$ 26,344.32**	**$ 20,000.00**
VII. Culvert Pilot Project											
Central Data Agency (MCSS)	10/16/18	$ -	$ -	$ -	$ 15,000.00	$ 9,312.00	$ 5,688.00	$ 25,000.00	$ -	$ -	$ -
MTU Project Management & Training	1/2/19	$ -	$ -	$ -	$ 172,100.00	$ 172,100.00	$ -	$ 15,000.00	$ -	$ -	$ 15,000.00
TAMC Administration & Contingency	11/7/18	$ -	$ -	$ -	$ 84,438.00	$ -	$ 84,438.00	$ -	$ -	$ -	$ -
Central Upper Peninsula Planning and Development	3 qtr 18	$ -	$ -	$ -	$ 88,641.00	$ 51,909.64	$ 36,731.36	$ -	$ -	$ -	$ -
East Michigan Council of Governments	SEPT	$ -	$ -	$ -	$ 328,607.00	$ 259,229.13	$ 69,377.87	$ -	$ -	$ -	$ -
Eastern Upper Peninsula Regional Planning & Devel.	4 qtr 18	$ -	$ -	$ -	$ 5,688.00	$ 5,034.70	$ 653.30	$ -	$ -	$ -	$ -
Genesee Lapeer Shiawasse Region V Planning Com.	SEPT	$ -	$ -	$ -	$ 124,909.00	$ 54,266.60	$ 70,642.40	$ -	$ -	$ -	$ -
Grand Valley Metropolitan Council	4 qtr 18	$ -	$ -	$ -	$ 77,782.00	$ 69,733.25	$ 8,048.75	$ -	$ -	$ -	$ -
Kalamazoo Area Transportation Study	SEPT	$ -	$ -	$ -	$ 50,402.00	$ 15,879.65	$ 34,522.35	$ -	$ -	$ -	$ -
Northeast Michigan Council of Governments	SEPT	$ -	$ -	$ -	$ 33,506.00	$ 21,781.96	$ 11,724.04	$ -	$ -	$ -	$ -
Networks Northwest	SEPT	$ -	$ -	$ -	$ 184,513.00	$ 163,641.05	$ 20,871.95	$ -	$ -	$ -	$ -
Region 2 Planning Commission	3 qtr 18	$ -	$ -	$ -	$ 54,900.00	$ 22,776.80	$ 32,123.20	$ -	$ -	$ -	$ -
Southcentral Michigan Planning Commission	SEPT	$ -	$ -	$ -	$ 93,456.00	$ 36,137.17	$ 57,318.83	$ -	$ -	$ -	$ -
Southeast Michigan Council of Governments	SEPT	$ -	$ -	$ -	$ 87,644.00	$ 45,757.96	$ 41,886.04	$ -	$ -	$ -	$ -
Southwest Michigan Planning Commission	4 qtr 18	$ -	$ -	$ -	$ 101,849.00	$ 67,138.17	$ 34,710.83	$ -	$ -	$ -	$ -
Tri-County Regional Planning Commission	4 qtr 18	$ -	$ -	$ -	$ 47,587.00	$ 6,962.44	$ 40,624.56	$ -	$ -	$ -	$ -
West Michigan Regional Planning Commission	SEPT	$ -	$ -	$ -	$ 241,511.00	$ 181,441.39	$ 60,069.61	$ -	$ -	$ -	$ -
West Michigan Shoreline Regional Development Com.	SEPT	$ -	$ -	$ -	$ 144,238.00	$ 89,092.30	$ 55,145.70	$ -	$ -	$ -	$ -
Western Upper Peninsula Regional Planning & Devel.	4 qtr 18	$ -	$ -	$ -	$ 63,229.00	$ 46,960.41	$ 16,268.59	$ -	$ -	$ -	$ -
Culvert Pilot Project Total		$	$	$	**$ 2,000,000.00**	**$ 1,319,154.62**	**$ 680,845.38**	**$ 40,000.00**	**$ -**	**$ 40,000.00**	**$ -**
Total Program		**$ 1,635,170.69**	**$ 1,233,613.05**	**$ 83,941.64**	**$ 3,882,955.00**	**$ 3,022,482.94**	**$ 860,472.06**	**$ 1,921,505.00**	**$ 927,574.35**	**$ 993,930.65**	**$ 1,856,400.00**
Appropriation		**$ 1,626,400.00**		**5.13%**	**$ 3,876,400.00**		**22.16%**	**$ 1,876,400.00**		**51.73%**	**$ 1,876,400.00**

2019 Fall Transportation Asset Management Conference

Michigan Transportation Asset Management Council

Memo

To: TAMC Data Committee

From: Roger Belknap, TAMC Coordinator

Date: August 15, 2019

Re: TAMC Traffic Signal Pilot Effort – Next Steps

Recommendation for the TAMC Data Committee
Discussion of next steps for Traffic Signals as an asset class and how signals are included in asset management plans and TAMC's TAMP template.

Background
Traffic Signals are an asset class included with culverts, roads and bridges in Public Act 325 of 2018 for which agencies will need to include in their Asset Management Plans. TAMC Data Committee has worked with Traffic Signal Subject Matter Experts to create a list of desired data elements.

Last meeting's minutes reflect an assignment for Michigan Technological University's Center for Technology and Training (MTU-CTT) to create a survey to send out to agencies within the next couple of months. The survey would gather data on:

- The data elements that are useful for asset management
- Existing data agencies are collecting
- Definitions for elements and attributes

Currently, there is a placeholder in the template for culverts and traffic signals. Number of culverts, cost, and how many should be replaced each year are currently fields in the template. The majority of the elements are already in Roadsoft. MTU-CTT can create a one button push element in Roadsoft to make it easy for the agencies to complete.

Attachments with Agenda Packet
List of data elements recommended by Traffic Signal Subject Matter Experts; the list is color-coded as priority one (red) and priority two (green).

7/19/19

Traffic Signal Inventory: Data for Consideration 3.0

Asset ID #							
Location							
Owner							
Maintaining Agency							
Estimated Age of Equipment	Installation Date	Full Modernization Date					
Signal Type	Traffic	Fire/RXR	Pedestrian				
GPS Location							
Pole Type	Mast Arm	Wood	Steel	Treated Steel			
Number of Poles							
Pole Foundation	Buried	Anchor Bolts	Number of Bolts 4 or 6	Inspection date			
Span Type	Box	Diagonal	N/A				
Vehicle Heads	#	LED/Incandescent	8”/12”				
Left Turn Heads	Yes/No	FLR	FYA	Protected	4th level	Dog House	
Pedestrian Heads	Yes/No	Number	Countdown	LED/Incandescent		8”/12”	
Case Signs	Yes/No	Number	LED/Incandescent	8/12”	Size		
Vehicle Detection	Yes/no						
Pedestrian Detection	Yes/no						
Preemption	Yes/No	Railroad	Fire/Ambulance				
Battery Backup	Yes/No						
Communication	Yes/No						
Cabinet							
Controller							

1) Phased In Approach: year 1 in template agency required to plan for conducting inventory
2) Data Dictionary, definitions
3) Pilots: test with selected agencies
4) Life span: 20 – 30 years, closer to 30
5) Controller life span 10 – 15 years
6) Cost, maintenance budget: request agencies submit?
7) new/replace locations in road projects

Summary Statistics – TAMC Investment Reporting Compliance

As of August 15, 2019

Fiscal Year 2016

Counties	
Agencies Approved for Investment Reporting	83
Cities/Villages	
Agencies Approved for Investment Reporting	526
Not Approved: #1 – No Data or IRT User	2
Not Approved: #2 – IRT & ADARS Not Matching	4
Agency Not Yet Reported (Not Yet Due or Extension)	1
MDOT – Approved for Investment Reporting	1

Fiscal Year 2017

Counties	
Agencies Approved for Investment Reporting	83
Cities/Villages	
Agencies Approved for Investment Reporting	527
Not Approved: #1 – No Data or IRT User	2
Not Approved: #2 – IRT & ADARS Not Matching	2
Not Approved: #3 – IRT Status Not Updated	1
Agency Not Yet Reported (Not Yet Due or Extension)	1
MDOT – Approved for Investment Reporting (3-5-18)	1

Fiscal Year 2018

Counties	
Agencies Approved for Investment Reporting	71
Not Approved: #2 – IRT & ADARS Not Matching	1
Not Approved: #3 – IRT Status Not Updated	1
Not Approved: #4 – Needs to complete survey	5
Agencies Not Yet Submitted Act 51 Report	5

Cities/Villages

Agencies Approved for Investment Reporting	505
Not Approved: #1 – No IRT User or Data	2
Not Approved: #3 – IRT Status Not Updated	7
Not Approved: #4 – Needs to complete survey	1
Agency Not Yet Reported (Not Yet Due)	18

MDOT – Approved for Investment Reporting (5-6-19)	1

Fiscal Year 2019

Counties

Agencies Not Yet Due for Reporting	83

Cities/Villages

Agencies Approved for Investment Reporting	57
Not Approved: #3 – IRT Status Not Updated	21
Not Approved: #4 – Needs to complete survey	4
Agency Not Yet Reported (Not Yet Due)	467

MDOT – Not Yet Due for Reporting	1

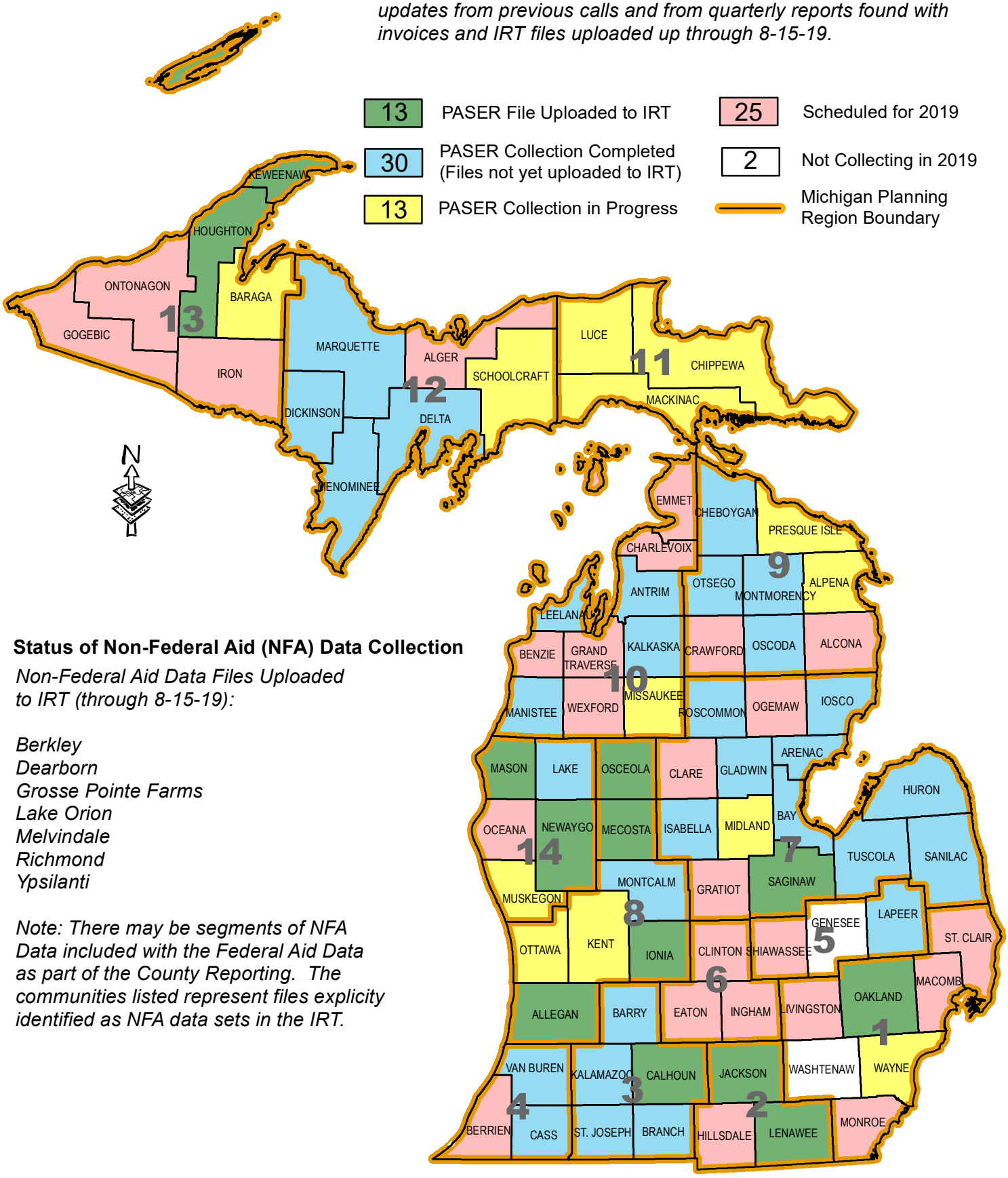
RAB 8-15-19

Michigan Transportation Asset Management Council

www.Michigan.gov/TAMC

2019 - PASER Status by County

Map indicates completion status of TAMC sponsored Federal Aid PASER Data Collection as reported by Regional Planning Agency and Metro Planning Organziation Coordinators. Data also includes updates from previous calls and from quarterly reports found with invoices and IRT files uploaded up through 8-15-19.



Status of Non-Federal Aid (NFA) Data Collection

Non-Federal Aid Data Files Uploaded to IRT (through 8-15-19):

Berkley
Dearborn
Grosse Pointe Farms
Lake Orion
Melvindale
Richmond
Ypsilanti

Note: There may be segments of NFA Data included with the Federal Aid Data as part of the County Reporting. The communities listed represent files explicity identified as NFA data sets in the IRT.

Michigan Transportation Asset Management Council

Memo

To: TAMC Data Committee

From: Roger Belknap, TAMC Coordinator

Date: August 15, 2019

Re: Michigan Technological University's Center for Technology & Training 2020 TAMC Work Program

Recommendation for the TAMC Data Committee

Provide recommendation to TAMC regarding the MTU-CTT "Activities" and "Education" work plans for FY2020. Provide recommendation to TAMC to adjust the FY2020 TAMC Budget to reflect the work plan estimates for MTU-CTT's Education and Activities contracts.

Background

The 2020-2022 TAMC Strategic Work Program will contain appendices for the Center for Shared Solutions (CSS) and Michigan Technological University's Center for Technology and Training (MTU-CTT) 2020 Work Programs and FY2020 budgets. At the July 24, 2019 the Data Committee recommended that the CSS 2020 Work Program and budget be submitted to TAMC.

Attached are drafts of the MTU-CTT TAMC 2020 Activities Work Plan and the MTU-CTT TAMC 2020 Training Work Plan for the Data Committee's review. As a reminder, the Activities contract starts/ends October 1, 2019 while Education contract starts on the calendar year. The MTU-CTT 2020 Activities Work Plan provides a budgetary estimate of $115,000; the Education Work Plan provides a budgetary estimate of $225,000; these estimates equal the combined FY2020 TAMC budget approved on January 9, 2019 for MTU-CTT's work plans. However, the TAMC budget for MTU Activities as approved is $120,000 and MTU Education is $220,000, therefore a consideration of a budget modification should be included as part of this review and discussion.

In addition to the Education and Activities Work Plans, MTU-CTT is working with the TAMC Bridge Committee to establish a third work plan for culverts, which will also be included in the 2020-2022 TAMC Strategic Work Program as a separate appendix and contract. Funds for the MTU-CTT Culvert Work Plan will be provided out of the fund balance of the 2018 Culvert Mapping Pilot appropriation and not the annual TAMC appropriation out of the Michigan Transportation Fund.

Attachments with Agenda Packet

Attached are drafts of the MTU-CTT TAMC 2020 Activities Work Plan and the MTU-CTT TAMC 2020 Training Work Plan.

Proposal Title:

DRAFT 2020 Transportation Asset Management Council Education Program Work Plan

Submitted To:

Roger Belknap
Bureau of Transportation Planning
Michigan Department of Transportation
belknapr@michigan.gov

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Date Submitted:

August 9, 2019

Michigan Technological University
Civil and Environmental Engineering
1885

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1.0 INTRODUCTION

The Michigan Transportation Asset Management Council (TAMC) began delivering its education program and providing technical services in 2004. Since that time, Michigan Technological University has assisted with the TAMC Education Program and continues to be a logical choice for assisting with this program because of its Center for Technology & Training (CTT). The CTT is part of the Department of Civil and Environmental Engineering (CEE) and is located on Michigan Technological University's campus, which offers a wide array of resources for this project. The CTT houses various state- and federal-funded programs. For example, CTT projects funded by the Michigan Department of Transportation (MDOT) include the Michigan Local Technical Assistance Program (LTAP), Roadsoft, Michigan Engineer's Resource Library (MERL), and Bridge Load Rating technical support program. Additionally, the CTT houses the federally-funded Environmental Protection Agency's Region 5 environmental finance center—the Great Lake Environmental Infrastructure Center (GLEIC). This array of programs economizes upon professional, development, and support staff to make project delivery cost effective and time efficient. The CTT focuses its efforts specifically on projects related to local government agencies and transportation.

In 2014, the State of Michigan required continuing education hours (CEH) for professional engineers to maintain their licenses. As an education institution, the Michigan LTAP is in the position to provide CEH for professional engineers. Alongside this ability, the Michigan LTAP can encourage the appropriate TAMC classes as a means for maintaining licensure.

One of the prime challenges of effectively working with the over 600 local agencies in Michigan is keeping accurate contact information. The ability of the Michigan LTAP to contact local agency staff through e-mail, phone, and direct mail can provide a major benefit to programs that are targeted at Michigan's local agencies, like TAMC's training efforts. The Michigan LTAP maintains a state-of-the-art contact and event management database, which makes advertising and participant registration for local agency training events a very simple, cost-effective process. In addition, because LTAP is a nationally recognized program working to educate local agencies, events advertised through the Michigan LTAP can take advantage of state and national agreements between partner organizations—such as County Road Association (CRA) of Michigan, National Association of County Engineers (NACE), National Association of Counties (NACO), Michigan Township Association (MTA), American Council of Engineering Companies (ACEC), and Michigan Municipal League (MML)—for access to their contact databases. These agreements allow the Michigan LTAP access to these partner organization mail lists at no cost. Access to these same mail lists outside of LTAP partner organization agreements can have a substantial cost, sometimes as high as $0.10 to $0.20 per contact.

Events that are co-sponsored with the Michigan LTAP benefit by utilizing the wealth of local agency contact information that is stored in the Michigan LTAP contact and event management system and from the no-cost access to Michigan LTAP partner organization mail lists. They also benefit by taking advantage of the infrastructure that the Michigan LTAP has for registering and invoicing participants, event tracking, and training records retention. By not duplicating these efforts, the arrangement results in an economy of scale through cooperation among programs that educate local agency transportation staff.

Since its inception, the TAMC training program has been and continues to be coordinated as a co-sponsored training event with the Michigan LTAP.

2.0 TAMC WORK PLAN GUIDELINES

The tasks for this proposal were identified from educational priorities outlined by TAMC in the *Draft TAMC Strategic Work Program for 2020-2022* (See Appendix A). Tasks are referenced to the appropriate items in the *TAMC Strategic Work Program*.

3.0 WORK PLAN

This draft work plan is for discussion purposes only to assist TAMC in budgetary planning. It does not represent a firm quote, and it does not commit University personnel, facilities, or funds. Final terms and conditions of this sponsored activity are subject to University review and authorization of a formal proposal or agreement.

This work plan and budget are for the period beginning January 1, 2020 and ending December 31, 2020. The project is approximately $225,000. A more precise and detailed cost estimate will be provided with the final proposal should TAMC accept this scope of work at the budgetary level in Appendix B.

The work plan consists of the following major tasks in accordance with the Draft *TAMC Strategic Work Program for 2020-2022*:

- Task 1: Assist in Coordinating the Michigan Transportation Asset Management Conferences
- Task 2: Conduct Michigan Transportation Asset Management Workshops
- Task 3: Conduct Introduction to Transportation Asset Management for Local Officials Training
- Task 4: Conduct Michigan Transportation Asset Management Council PASER Training

- Task 5: Conduct Inventory Based Rating™ Training
- Task 6: Conduct Workshop on Creating Bridge Asset Management Plans
- Task 7: Conduct Workshop on Creating Pavement Asset Management Plans
- Task 8: Project Management and Reporting

A nominal registration fee will be assessed to participants for attending training events delivered under this program consistent with Michigan LTAP policy. Registering and failing to show at an event per Michigan LTAP cancelation policy will result in a fee for participants. Registration fees are calculated to break even for on-site expenses, which include consumables that participants use or take with them (such as facility rental, webinar and phone line expenses, food and refreshments, handouts, and rental of audio visual equipment). Registration fees help to offset the load on the program for on-site activities. The absence of a registration fee (i.e., free training) has been shown to increase no-shows and decrease attendance at training programs because it is assumed that "free" training has some other profit motive and requires no commitment on the part of the participant.

Participants in training events offered under this program will be issued certificates of completion for continuing education hours (CEH) required for maintaining a Michigan professional engineer license where applicable. Every attempt will be made to ensure that trainings provided in this program are eligible for CEH credit for attendees.

3.1 Task 1– Assist in Coordinating the Michigan Transportation Asset Management Conferences

Draft TAMC Strategic Work Program for 2020-2022 Item: ACE Committee Goal 3, Objective 3: Annual Educational Conference (see Appendix A).

CTT staff will participate in organizing both conferences, including participation in organization meetings, distribution of promotional material, handling of participant registration, printing of folder handouts, active facilitation of the conferences, and provision of on-site audiovisual and logistical support. CTT staff will also record audio and screen captures of presentations, which will be built into a Flash or video format that can be streamed over the web.

CTT staff will collect the registration fee set by TAMC, mail invoices, and return collected fees back to TAMC to defray on-site and facility expenses.

The currently planned events are:

Assist at one, one-day conference
Lansing, Michigan, Spring 2020

Assist at one, one-day conference
Upper Peninsula, Michigan, Fall 2020

3.2 Task 2– Conduct Michigan Transportation Asset Management Workshops

Draft TAMC Strategic Work Program for 2020-2022 for the Full Council Goal 1, Objective 3: Supporting the development of asset management methodologies (see Appendix A).

This task consists of presenting two full-day sessions of the Asset Management Workshop. This workshop has been ongoing since 2006 and has met most audience needs. Two sessions per year should be sufficient to meet the demand for new local agency employees or participants new to asset management. The locations of the workshop will be distributed statewide to minimize participant drive time.

This task does not include a budget for reimbursement for participants, RPO coordinators, TAMC members, or TAMC staff, or for any revision, editing, or enhancements to the *Asset Management Guide for Local Agencies* or presentation material.

The currently planned events are:
Conduct two, one-day sessions, Fall 2020

3.3 Task 3– Conduct Introduction to Transportation Asset Management for Local Officials and Gravel Road Basics for Elected Officials Training

Draft TAMC Strategic Work Program for 2020-2022 for the Full Council Goal 1, Objective 3: Supporting the development of asset management methodologies (see Appendix A).

This task includes presentation of five sessions of either Asset Management for Local Officials which has been offered for several years running and focuses on management of paved roads, or Gravel Roads Basics for Elected Officials, which was developed and piloted in 2018 and focuses on unpaved roads. The five sessions will be offered in any combination of these two classes that local agencies request.

Historically TAMC local elected officials training have been offered at a local agency office, with that agency offering to “host” the event. Hosted training events typically target the elected officials in the immediate jurisdictions. Hosted training events will be delivered during morning, afternoon, or evening as the site’s host agency expresses interest. In addition to hosted sessions, several “open enrollment” sessions will be planned that are not associated with a host agency. Open enrollment events will be advertised to all elected officials statewide.

This budget includes facility costs (if any), handouts, participant registration, CTT instructor time, and travel costs. This budget does not include any reimbursement for participants, RPO coordinators, TAMC members, or TAMC staff. Host agencies are responsible for break refreshments.

The currently planned events are:
Conduct five workshop sessions at approximately three-hours each.

3.4 Task 4 – Conduct TAMC PASER Training

Draft TAMC Strategic Work Program for 2020-2022 for the Full Council Goal 1, Objective 1: Surveying and reporting the condition of roads and bridges (see Appendix A).

The presentation material will be updated to reflect data collected in 2019, quality-control results, and any changes in legislation and TAMC policies. Training will also be further adapted to the use of audience response systems (I-Clickers) based on the continued success of the usage of this technology. This technology was found to engage attendees, provide instant and accurate feedback, and produce data that can be used to further assess training techniques.

Training dates will be coordinated with TAMC's data collection start date. TAMC needs to notify the CTT of any changes in its collection training requirements and policy by December 1, 2019. It is otherwise assumed that start dates and training policy will remain the same as the last approved start dates and policy.

This task includes facility costs (if any), printing of handouts, purchase of PASER Manuals, participant registration, CTT instructor time, and travel costs. This task does not include any reimbursement for participants, RPO coordinators, TAMC members, or TAMC staff.

This task includes the distribution of the Local Agency Asset Management Survey, which will be delivered in its current format to all local agency participants at the on-site PASER training sessions.

The currently planned events are:
Conduct four, three-hour distress identification webinars; conduct ten half-day on-site PASER training sessions; conduct one full-day combined PASER and distress identification workshop for newly hired staff; conduct one, two-hour webinar for RPO's and MPO's on using the Roadsoft data process.

3.5 Task 5 – Conduct Inventory Based Rating™ Training

Draft TAMC Strategic Work Program for 2020-2022 for the Full Council Goal 1, Objective 1: Surveying and reporting the condition of roads and bridges (see Appendix A).

The Inventory Based Rating™ (IBR) system for unpaved roads was developed in 2015 at the request of the TAMC. In 2016, the tools in Roadsoft were released to allow agencies to collect and analyze unpaved road condition data efficiently. In 2017, the TAMC adopted a data collection policy, which included mandatory collection of the IBR data for unpaved roads on the federal aid eligible road system that took effect in 2018. In order to collect this data, it will be necessary to train staff from agencies that own gravel roads.

This task will update and deliver training that will allow local agencies to make consistent use of the tools and systems that TAMC has developed over the years for unpaved roads and will allow them to collect data for their own use and for reporting to TAMC.

The currently planned events are:
Update and conduct three, one-hour webinars on use of the IBR system for rating unpaved roads.

3.6 Task 6 – Conduct Michigan Bridge Asset Management Workshop

Draft TAMC Strategic Work Program for 2020-2022 for the Full Council Goal 3, Objective 2: Provide training for asset management template (see Appendix A).

The Bridge Asset Management Workshop was modified during the 2016 TAMC Education work plan and was presented for the first time as part of the 2017 TAMC Education work plan. The new workshop includes two two-hour webinars that present bridge asset management principles and one five-hour on-site workshop that provides participants with a hands-on how-to session for developing an agency's bridge asset management plan. The details for the requirements of the revised workshop were outlined by the Bridge Committee.

This task will provide time and expenses for a CTT instructor to present the webinar on two occasions and workshop series on four occasions. This task does not include a budget for reimbursement for participants, RPO coordinators, TAMC members, or TAMC staff, or for any revision, editing, or enhancements to handouts or presentation material. The locations of the workshop will be distributed statewide to minimize participant drive time and to maximize attendance.

The currently planned events are:
Conduct two sets of two-hour webinars and four five-hour on-site sessions

3.7 Task 7: Conduct Workshop on Creating Pavement Asset Management Plans

Draft TAMC Strategic Work Program for 2020-2022 for the Full Council Goal 3, Objective 2: Provide training for asset management template (see Appendix A).

This task consists of presenting four full-day sessions of the Pavement Asset Management Plan Workshop and two, two-hour webinars on how to define their network in preparation for the Pavement Asset Management Plan Workshop. The Pavement Asset Management Plan Workshop was developed and piloted in 2017. Public Act 325 of 2018 makes asset management plans compulsory. Asset management plans are positive signs of implementation of asset management principles at an agency level and are considered a best practice.

This task will provide time and expenses for CTT instructors to present the webinars and workshops and update the training materials from feedback received by participants. This task also provides technical support for local agencies that have completed the workshop while working with the data-parsing tools developed for this workshop.

The currently planned events are:
Present two, two-hour webinars and four, one-day sessions

3.8 Task 8: Project Management & Reporting

Draft TAMC Strategic Work Program for 2020-2022 Item: TAMC Goal 2: Provide fiscal and budgetary accountability for TAMC. (see Appendix A).

This effort covers all management of the project, project reporting, project-specific interaction with Michigan Tech administration, and relations with the sponsor.

Monthly Reports

Monthly progress reports will include a list of trainings conducted (date, location) and an estimate of percent completion by task. Estimates of percent complete are based on aggregate hours worked—not based on budget expended—so these estimates are not intended to be used for auditing invoices by the sponsor.

Quarterly Reports

Quarterly progress reports will include trainings conducted (date, location), a cumulative list of training participants, and an estimate of percent completion by task (these estimates will not be used for auditing invoices). Quarterly reports will be submitted in place of a monthly report by the last day of the month following the end of the calendar quarter.

Annual Training Report
At the end of each calendar year, CTT staff will compile a comprehensive report that will summarize the performance of all TAMC training events. The report will include historical attendance figures as compared to the current year, spatial summary maps of attendees for the TAM conferences, and feedback received from participant evaluations.

Annual Survey of Local Agency Asset Management Implementation Report
Following the completion of PASER training, CTT staff will compile a comprehensive training report that will summarize the results of the Local Agency Asset Management Survey collected during the annual PASER collection and will compare current and historical results.

4.0 KEY PERSONNEL

Tim Colling, PhD, PE, Director – PI
Pete Torola, PE, Research Engineer II – Co-PI
Chris Gilbertson, PhD, PE, Associate Director – Co-PI

Names of Employees and Positions for this Service
Allison Berryman, Customer Svc & Data Support Specialist
Chris Codere, Sr. Project Manager, Training & Operations
Tim Colling, PhD, PE, Director – PI
Mary Crane, Sr. Software Engineer
Cynthia Elder, Workshop Coordinator
Zach Fredin, PE, Research Engineer I
Chris Gilbertson, PhD, PE, Associate Director
Andy Manty, PE, Research Engineer
Victoria Sage, MS, Technical Writer/Training Coordinator
Peter Torola, PE, Research Engineer II

Appendix A: Draft TAMC Strategic Work Program for 2020-2022

Appendix B: Budget and Cost Derivation MDOT Form 5101A-1

Will be included in final proposal

Appendix C: Payroll Verification

Will be included in final proposal

Proposal Title:

DRAFT 2020 Transportation Asset Management Council Technical Assistance Activities Program Work Plan

Submitted To:

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1.0 INTRODUCTION

The Michigan Transportation Asset Management Council (TAMC) began delivering its education program and providing technical services in 2004. Since that time, the Center for Technology &Training (CTT) has assisted the TAMC with its education programs and technical assistance services. The CTT is a logical choice for this program because, in addition to the TAMC Education Program, the CTT houses other programs funded by the Michigan Department of Transportation (MDOT) including the Michigan Local Technical Assistance Program (LTAP), Roadsoft, Michigan Engineer's Resource Library (MERL), and the Bridge Load Rating Program. This array of programs economizes upon professional, development, and support staff to make project delivery cost effective. The CTT focuses its efforts specifically on projects related to local government agencies and transportation. The CTT is part of the Civil and Environmental Engineering (CEE) department on Michigan Technological University's campus.

2.0 TAMC WORK PLAN GUIDELINES

The tasks for this proposal were identified from educational priorities outlined by TAMC in the *Draft TAMC Strategic Work Program for 2020-2022* (See Appendix A). Tasks are referenced to the appropriate items in the *TAMC Strategic Work Program*.

3.0 WORK PLAN

This draft work plan is for discussion purposes only to assist TAMC in budgetary planning. It does not represent a firm quote, and it does not commit University personnel, facilities, or funds. Final terms and conditions of this sponsored activity are subject to University review and authorization of a formal proposal or agreement.

This work plan and budget is for the period beginning October 1, 2019 and ending September 30, 2020. The project is approximately $115,000. A more precise and detailed cost estimate will be provided with the final proposal should TAMC accept this scope of work at the budgetary level in Appendix B.

The work plan consists of the following major tasks in accordance with the Draft *TAMC Strategic Work Program for 2020-2022*:

- Task 1: Maintain Roadsoft –IRT Data Submission Protocols

- Task 2: Maintenance of TAMC PASER Training Certification Testing Instruments and Records
- Task 3: Traffic Signal Study
- Task 4: Treatment Cost Query Process
- Task 5: Undefined Staff Support
- Task 6: Attend and Participate in TAMC Council Meetings
- Task 7: Attend and Participate in TAMC Committee Meetings
- Task 8: Project Management and Monthly Reporting

3.1 Task 1: Maintain Roadsoft – IRT Data Submission Protocols

Draft TAMC Strategic Work Program for 2020-2022 Item: TAMC Goal 1, Objective 1: Surveying and reporting the condition of roads and bridges. (see Appendix A).

TAMC dedicates a significant portion of its efforts to collecting the pavement data and construction history information (completed and planned investments) necessary for driving asset management processes at the local, regional, and state levels of government. TAMC data collection activities require sharing of data between these three levels of government in a meaningful format for each stakeholder. To facilitate this data collection, sharing, and reporting, the TAMC relies on interfaces between Roadsoft (asset management software) developed by the Center for Technology & Training and the Investment Reporting Tool (IRT) developed by the Center for Shared Solutions (CSS). Development for both of these tools is ongoing as user requirements change, software interfaces and underlying data systems are maintained, and data collection policies are modified.

The data transfer protocols and interactivity between Roadsoft and the IRT need to be updated and tested annually to ensure that quality data are passed between the two systems and that changes or updates during the prior year have not resulted in data transfer irregularities. This task should be completed close to the start of data collection activities in April, but the development cycle and project load for CSS will dictate. This task will include annual testing and verification of the Roadsoft export of PASER data to the IRT, and import and export of planned and completed treatments (investment reporting) from Roadsoft to the IRT and from the IRT to Roadsoft. Currently with the recent rewrite of the IRT, the functionality does not exist in the IRT to support planned and completed data transfers, however when the IRT allows this functionality the CTT team will actively implement any changes necessary to make Roadsoft compatible with the new IRT transfer. The task also includes a budget for making small changes to the import and export protocols should they be necessary; however, at the time of the submission of this proposal, it is not clear what the extent the changes will be.

3.2 Task 2: Maintenance of TAMC PASER Training Certification Testing Instruments and Records.

Draft TAMC Strategic Work Program for 2020-2022 Item: TAMC Goal 1, Objective 1: Surveying and reporting the condition of roads and bridges. (see Appendix A).

In 2012, the TAMC instituted a PASER Training certification process, which reduced the need for qualified raters to attend training every year. As part of this certification process, raters are required to have a minimum level of past training attendance and pass a knowledge-based exam. During the 2012 work program, testing instruments (i.e., written test and associated slideshow of testing graphics) were created and tested on a control group at the CTT.

This task includes modification to the existing testing materials to be sure that past testing instruments are not identical to current testing instruments for the upcoming year. The task will also cover administration of the certification program, tracking and notification of eligible participants, and maintenance of certification records for the roughly 400 participants in the PASER Training program. The time needed accomplish this task before beginning training efforts requires this task to be present in the TAMC Activities work program.

3.3 Task 3: Signal Study

Draft TAMC Strategic Work Program for 2020-2022 Item: TAMC Goal 1, Objective 3: Supporting the development of appropriate asset management methodologies. (see Appendix A).

Public Act 325 of 2018 provided a specific charge for TAMC to oversee *"…assets that impact system performance, safety, or risk management, including signals and culverts."* One of the largest challenges of TAMC working with traffic signal assets is determining their overall population in Michigan's 533 cities and villages, and 83 counties. The number of traffic signals and the cost associated with installing them has a large impact on what level of oversight TAMC may exercise. If, for example, signals only comprise a small portion of the total cost of local infrastructure, TAMC may elect to collect minimal data on them. Establishing an estimate of the total local agency owned signal population will require collecting data from a sample of the more than 600 local agencies that own roads in Michigan. Electronic or mailed surveys are attractive data gathering methods due to their relatively low workload for researchers, however, surveys often have a very low return rate, and provide little evidence of the quality of data returned.

In completion of this task, CTT staff will contact by phone or in person staff from each of the 83 counties, and 39 largest cities to verbally collect data on the total number of signalized intersections that they are responsible for. Where agencies are non-responsive or are unsure of their number of signals, other methods of estimation will be used, such as estimation from

peers, estimation from demographical factors, or visual observation from aerial or street level photography.

CTT will collect a sample of signal data from smaller cities using the agency's total road miles to group them as a cohort. Figure 1 illustrates the distribution of Michigan cities and villages based on their road mileage. Research staff will start with large mileage cohorts first, and will continue working down the road mileage scale until a reasonable endpoint is found where few signals are present within the cohort. Currently that endpoint is expected around 40 miles of road. CTT will use this data to determine an estimate of the total number of signalized intersections maintained by local agencies.

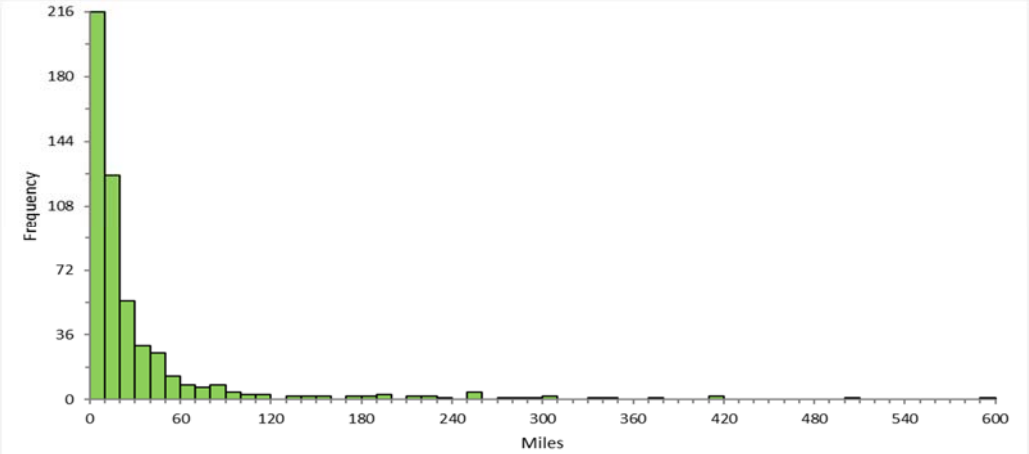

Figure 1: Total centerline road miles for Michigan cities and villages plotted as a function of the number of agencies (frequency). For clarity the city of Detroit is excluded from this graph due to its large number of miles (2588 miles).

CTT will conduct a cost study to determine project cost for signal replacement and new installation projects. Cost data will be collected from bid tabulations from MDOT's bid letting system, and from vendor and local agency subject matter experts.

The findings from this study will be presented in a summary report which will include proposed next steps for TAMC to consider for addressing signal data.

3.4 Task 4: Develop Treatment Cost Query Process

Draft TAMC Strategic Work Program for 2020-2022 Item: TAMC Goal 1, Objective 3: Supporting the development of appropriate asset management methodologies. (see Appendix A).

In 2018 CTT completed a study evaluating Investment reporting data for 2016 and 2017. The data generated from this study can be used to inform modeling efforts at the state and local level. This data will also be instrumental in assisting local agencies in developing their own asset management plans since treatment cost is a main input. The Draft TAMC Strategic Work Program for 2020-2022 proposed to update this cost analysis annually.

In completion of this task CTT will work with the Center for Shared Solutions to create a set of procedural steps to process investment reporting data to reproduce data similar to the 2018 investment reporting study with limited staff intervention. The 2016 and 2017 investment reporting data will be used as a test data set to verify that the developed procedure for processing investment data will produce results similar to the investment reporting study. This will greatly speed the generation of routine cost and investment volume information for TAMC's use, minimizing the need for more detailed studies.

This task will require effort on the part of the Center for Shared Solutions, so a budget for their involvement will be necessary in their work plan.

3.5 Task 5: Undefined Staff Support

This task will support any item in the *Draft TAMC Strategic Work Program for 2020-2022* but the individual goal or objective cannot be defined at this time since this work item is on an as needed basis.

This task provides support to the TAMC for items that cannot be identified at this time but are deemed critical to be completed in a short timeframe. Historically, this task has covered data management or critical changes to programs. This task allocates approximately 150 hours of staff time to tasks as requested by the Council or its sub-committees. Specific work activities are determined through discussion with the sponsor's project manager, the TAMC staff coordinator, or the TAMC chairperson.

3.6 Task 6: Attend and Participate in TAMC Council Meetings

Draft TAMC Strategic Work Program for 2020-2022 Item: TAMC Goal 3: Coordination of asset management with partner organizations. (see Appendix A).

This task includes attendance at TAMC Council Meetings to brief members on activity to date, to participate in on-site work, and to take direction from council members and staff. This task also includes time and expenses for CTT staff to attend four on-site 'person-meetings'[1] and six

[1] A "person-meeting" is one person attending one meeting

conference-call meetings[2]. Discussion with the sponsor's project manager and the TAMC staff coordinator will determine which meetings will be attended and which personnel will attend.

3.7 Task 7: Attend and Participate in TAMC Committee Meetings

Draft TAMC Strategic Work Program for 2020-2022 Item: TAMC Goal 3: Coordination of asset management with partner organizations. (see Appendix A).

This task includes attendance at TAMC Committee Meetings (including monthly meetings with RPO and MPO staff to brief members on activity to date), participation in on-site work, and taking direction from TAMC members and staff. This task also includes time and expenses for the CTT staff to attend four on-site 'person-meetings'[1] and eight conference-call meetings[2]. Discussion with the sponsor's project manager and the TAMC staff coordinator will determine which meetings will be attended and which personnel will attend.

3.8 Task 8: Project Management and Monthly Reporting

Draft TAMC Strategic Work Program for 2020-2022 Item: TAMC Goal 2: Provide fiscal and budgetary accountability for TAMC. (see Appendix A).

This task covers all management of the project, project reporting, and project-specific interaction with Michigan Technological University administration and relations with the sponsor.

Monthly progress reports will include a list of activities conducted and an estimate of percent completion by task. Estimates of percent complete are based on aggregate hours worked, not based on budget expended; so, these estimates are not intended to be used for auditing invoices by the sponsor.

4.0 KEY PERSONNEL

Tim Colling, PhD, PE, Director – PI
Mary Crane, Sr. Software Engineer– Co-PI

Names of Employees and Positions for this Service
Tim Colling, PhD, PE, Director
Gary Schlaff, Sr. Project Manager, Development & IT

[2] As a cost saving measure, the number of on-site meetings and associated travel cost have been reduced, with the assumption that teleconference meetings will meet the TAMC's needs as they have over the last several years.

Chris Codere, Sr. Project Manager, Training & Operations
Mary Crane, Sr. Software Engineer
Cynthia Elder, Workshop Coordinator
Chris Gilbertson, PhD, PE, Sr. Research Engineer
Andrew Manty, PE, Research Engineer
Luke Peterson, Principle Programmer
Scott Bershing, Technical Writer
Victoria Sage, MS, Technical Writer
Peter Torola, PE, Research Engineer II

Appendix A: Draft TAMC Strategic Work Program for 2020-2022

Appendix B: Budget and Cost Derivation MDOT Form 5101A-1

Will be included in final proposal

Appendix C: Payroll Verification

Will be included in final proposal